

# Work Order ID 72865

Wednesday, August 17, 2011 9:05:43 AM



Page 1

Item ID: D2893-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 2.75 Support

Start Date: 8/17/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 11-08-11

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D2893	C								
100	HAAS CNC VERTICAL MACHINING #1	0.00							
	HAAS 1	0.00							
HAAS CNC vertical machine #1	Memo 1-Machine as per Folio FA081 2-Deburr								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
	QC	0.00							
Quality Control	Memo								
120	QC8- Inspect parts - second check	0.00							
	QC	0.00							
Quality Control	Memo								

FK, 11/09/09.

SL 11-09-12

20

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FK, 11/09/09.

SL 11-09-12

20

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B.A 11/09/13

20

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W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_



Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_




NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Wednesday, August 17, 2011 9:05:43 AM

Page 2

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 	HandFXtube	0.00				W	11	09	30 (20)
	Hand Finishing Crosstubes								
	Memo	0.00							
	Per note 8 on page 1 of dwg D2893, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24h of cure time. <u>B# 118144</u>								
140 	QC3- Inspect Part Finish	0.00				18	11	03	20
	QC								
	Quality Control								
	Memo	0.00							
170 	Packaging	0.00				W	11	03	20
	Packaging								
	Memo	0.00							
	Identify as per dwg & Stock Location: <u>X-tubes</u> <u>ASSY</u>								

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 72865

Wednesday, August 17, 2011 9:05:43 AM



Page 3

Item ID: D2893-1

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Item Name: 2.75 Support

Start Date: 8/17/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

W/10/5

MF 11-10-4

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Wednesday, August 17, 2011 9:05:49 AM

Page 1

Work Order ID: 72865



Parent Item: D2893-1



Parent Item Name: 2.75 Support

Start Date: 8/17/2011

Required Date: 9/9/2011

Start Qty: 20.00

Required Qty: 20.00

## Comments:

IPP: C02.11.26 Reformat; Added P/O KJ  
 IPP D 06.04.19 removed alodine EC  
 IPP Rev:E Added priming as per Rev B 07-04-30 JLM  
 IPP F 08.03.19 Re-format EC verified by: DD  
 IPP Rev:G 08-05-15 add QC14 DD verified by:EC  
 11.08.04 as per dwg rev.C DD verf:EC  
 IPP Rev:H

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK078		Manufactured	No			100	Each	13.0000	0.5	10.52632			



D2893-1 TURNING DETAIL



FR. 11/09/09.

Location	Loc Qty	Loc Code
MAT060	13	
69591	1	
70242	2	
72660	10	

10

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description: Ø2.750 Support</b>		<b>Part Number: D2893-1</b>	
<b>Inspection Dwg: D2893</b>		<b>Rev: B</b>	
		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article
 ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		3.000	3.000	3.000	2.997	2.997
AB	0.440	0.460		.440	.440	.440	.440	.440
AC	0.125	0.160		.135	.130	.140	.140	.140
AD	0.040	0.060		.051	.051	.051	.050	.051
AE	0.188	0.193		.189	.189	.188	.188	.188
AF	0.125	0.160		.145	.145	.145	.145	.145
AG	0.140	0.160		.150	.149	.151	.151	.151
AH	1.360	1.400		1.370	1.369	1.376	1.377	1.377
AI	0.040	0.060		.051	.051	.051	.049	.051
AJ	1.190	1.230		1.211	1.209	1.218	1.218	1.219
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.530	2.530	2.530	2.530	2.530
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.266	.266	.262	.261	.261
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by: JL / FK
 Date: 11-09-07

Audited by: B.A
 Date: 11/09/13

Prototype Approval: \_\_\_\_\_
 Date: \_\_\_\_\_

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description: Ø2.750 Support</b>		<b>Part Number:</b>	<b>D2893-1</b>
<b>Inspection Dwg: D2893</b>		<b>Rev: B</b>	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6	7	8	9	10
HAAS Section								
AA	2.985	3.005		2.997	2.997	2.997	2.997	2.997
AB	0.440	0.460		.440	.440	.440	.440	.440
AC	0.125	0.160		.140	.135	.135	.135	.135
AD	0.040	0.060		.051	.050	.050	.051	.050
AE	0.188	0.193		.188	.188	.188	.188	.188
AF	0.125	0.160		.145	.145	.145	.145	.145
AG	0.140	0.160		.151	.150	.150	.150	.151
AH	1.360	1.400		1.374	1.379	1.368	1.373	1.373
AI	0.040	0.060		.51	.048	.053	.048	.049
AJ	1.190	1.230		1.218	1.220	1.212	1.212	1.216
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.530	2.530	2.530	2.530	2.530
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.261	.261	.261	.261	.261
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by: FK/JL Date: 11-09-08

Audited by: B.A Date: 11/09/13

Prototype Approval: \_\_\_\_\_ Date: \_\_\_\_\_

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description: Ø2.750 Support</b>		<b>Part Number:</b>	<b>D2893-1</b>
<b>Inspection Dwg: D2893</b>	<b>Rev: B</b>	<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ **First Article**
☐ **Prototype**

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	11	12	13	14	15
<b>HAAS Section</b>								
AA	2.985	3.005		2.994	2.994	2.995	2.995	2.995
AB	0.440	0.460		.440	.440	.440	.440	.440
AC	0.125	0.160		.135	.135	.135	.135	.135
AD	0.040	0.060		.050	.050	.051	.051	.051
AE	0.188	0.193		.188	.188	.188	.188	.188
AF	0.125	0.160		.145	.145	.145	.145	.145
AG	0.140	0.160		.150	.150	.150	.150	.150
AH	1.360	1.400		1.370	1.372	1.372	1.374	1.373
AI	0.040	0.060		.051	.052	.051	.049	.051
AJ	1.190	1.230		1.213	1.215	1.216	1.215	1.215
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	-0.053	0.073		-.063	-.063	-.063	-.063	-.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.530	2.530	2.530	2.530	2.530
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.261	.261	.261	.261	.261
AQ	0.053	0.073		.063	.063	.062	.063	.063
AR								
AS								
AT								
<b>Accept/Reject</b>								

**Measured by:** SL / F.K. **Date:** 11-09-08

**Audited by:** B.A. **Date:** 11/09/13

**Prototype Approval:**  **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	72865
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	217	218	219	220
HAAS Section								
AA	2.985	3.005		2.994	2.996	2.996	2.995	2.996
AB	0.440	0.460		.440	.440	.440	.440	.440
AC	0.125	0.160		.130	.130	.130	.130	.130
AD	0.040	0.060		-.050	-.051	-.050	-.050	-.051
AE	0.188	0.193		-.188	-.188	-.188	-.188	-.188
AF	0.125	0.160		.145	.145	.145	.145	.145
AG	0.140	0.160		.148	.150	.148	.149	.150
AH	1.360	1.400		1.371	1.373	1.376	1.373	1.368
AI	0.040	0.060		-.051	-.050	-.048	-.053	-.059
AJ	1.190	1.230		1.214	1.215	1.217	1.218	1.220
AK	0.010	0.020		-.015	-.015	-.015	-.015	-.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.530	2.530	2.530	2.530	2.530
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		-.261	-.261	-.261	-.261	-.261
AQ	0.053	0.073		-.063	-.063	-.063	-.063	-.063
AR								
AS								
AT								
Accept/Reject								

Measured by: E.K. / J.L.

Date: 11/09/09

Audited by: M.A.

Date: 11/09/13

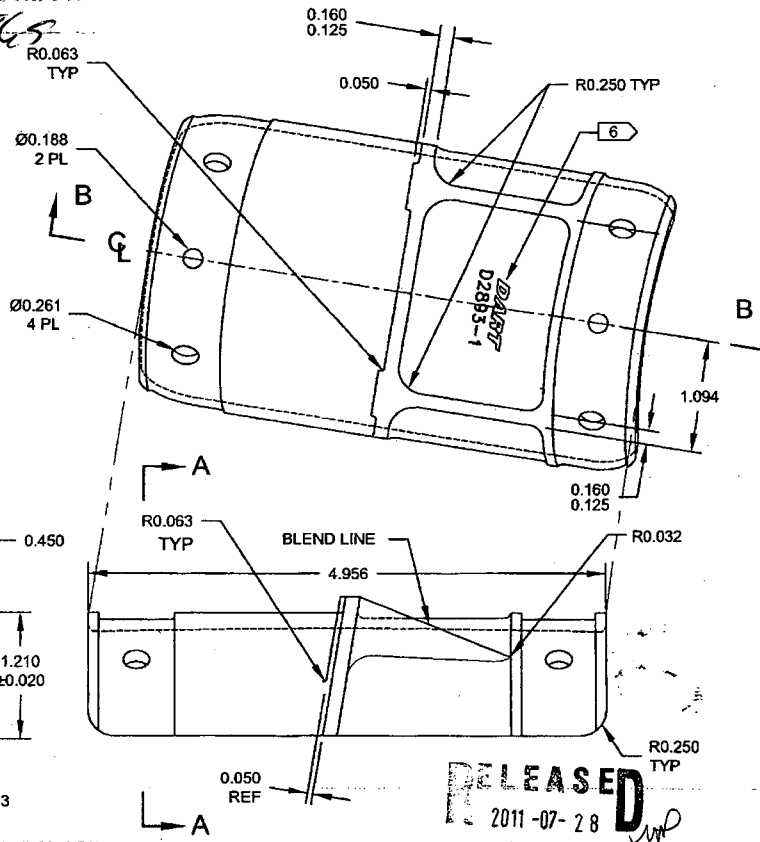
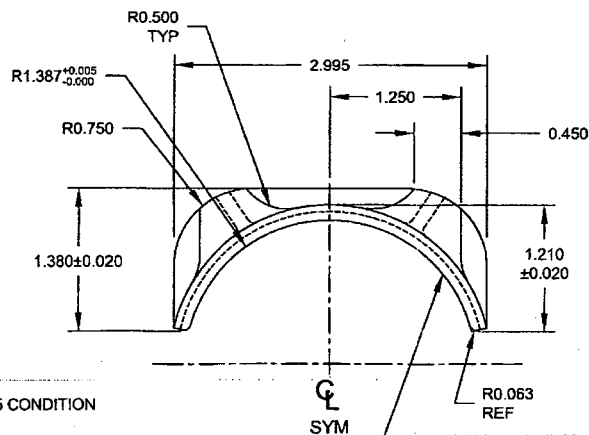
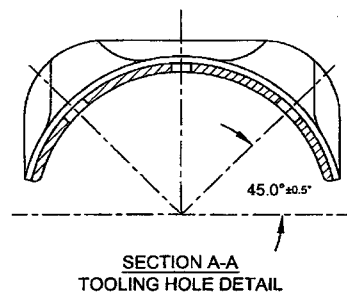
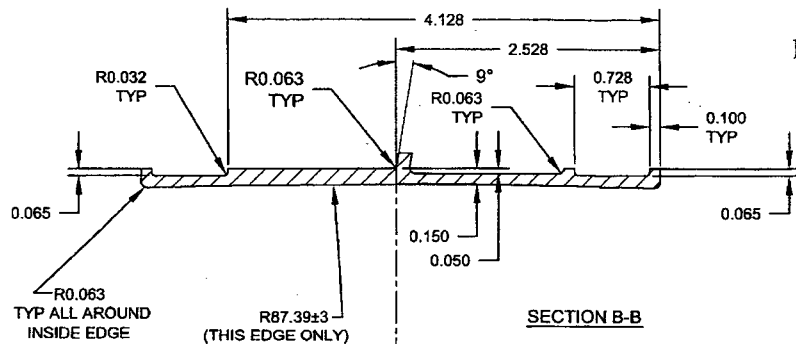
Prototype Approval:

Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

STOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER  
NO. 72865



NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION  
MIN UTS = 170 KSI (38 HRC)  
(REF DART SPEC. D6104)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ±0.010) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING  
0.010-0.020 DEEP, PER DART QSI 044 6.3.
- 7) WEIGHT: 0.78 lb
- 8) FOR THE ENTIRE INNER CONCAVE SURFACE:  
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.

D2893-1 SUPPORT

RELEASED  
2011-07-28

C	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION	CP	11.07.15
B	UPDATE DIMS AS MFG, PRIME INSIDE	PH	07.03.16
A	NEW ISSUE	CP	01.01.10
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D2893	REV. C SHEET 1 OF 1
TITLE Ø2.750 SUPPORT	SCALE NTS
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